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## ORIGINAL ARTICLES.

### OVARIAN TUMOR COMPLICATING PREGNANCY.\*

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In May, 1895, I was called to Mrs. W—, who was suffering severe abdominal pain, of an intermittent character. To my inquiries regarding menstruation, patient replied that she had "missed two months" and was probably pregnant, although she had not conceived for six years. On vaginal examination I found the pelvis pretty full, and the uterus difficult to outline, but from the general condition and size concluded she was in her fourth month and that she was probably mistaken in the date of last menstruation. I ordered an anodyne and a laxative, and the next day she seemed quite well again.

Two months later I was called for a like attack, and her size led me to inquire if she had felt life. She replied "No," that she was only four months. The size of the abdomen for the date in her pregnancy led me to anticipate a multiple pregnancy, and I so informed my patient. By vaginal examination at this date the fetus could be distinctly felt, and very low in the pelvis, and apparently surrounded by a large quantity of water. Patient continued to have slight attacks of pain during the following two months, but was quickly relieved by mild anodynes. The principal discomfort was from the enormous distension of the abdomen. The movement of child was

very strong and distinct, but low down; but the weight and pressure was above.

From the sixth to the seventh month the patient lost flesh rapidly and became emaciated and anemic. Her appetite was good, but she could only take small amounts of food at a time, as a full meal gave her a feeling of fulness and discomfort. At this time she developed slight cough and a feeling of "tightness" in the chest; no cardiac complication could be found. Urination was normal, defecation generally regular and stools well formed. I ordered concentrated nourishment administered frequently, and patient improved in strength, but not in flesh.

September 11, the seventh month of her pregnancy, the membranes ruptured, and five hours later the dilating pains began, and after a very natural labor a premature male child was expelled. It was a remarkably healthy-looking child; weighed a little over five pounds, and would, I think, have survived had the nurse been experienced in the care of premature children. After the child was expelled I found on delivering the placenta an empty uterus and, of course, knew she had an ovarian cyst.

The post-partum period was uneventful the lochia normal in amount and appearance. I could not appreciate the gradual involution of the uterus by external palpation, owing to the very great distension

\* Read by title before the Delaware State Medical Society, June 8, 1897.

of the abdomen. The pulse during the first ten days was 120 degrees, temperature 100. The pulse then went down to 100, temperature the same, and they remained at this until after operation.

Vaginal examination on the twenty-first day after delivery was as follows: Anterior vaginal wall, prolapsing, soft and edematous; cervix and uterus, soft; external os admits the tip of the index finger; uterus apparently free; vaginal walls not resistant, and percussion wave not transmitted to vaginal fornix, showing that the fluid is not free, but encysted.

Previous history given at this time is

greatly emaciated, very slight pitting on pressure over tibia of right leg. Abdomen enormously distended, dome-like, somewhat curling over flanks, but not so marked as in simple ascites; linea albicans very marked and instead of being raised slightly above the surface seem somewhat depressed. Epidermal covering had satiny look, as though the subcutaneous fibrous tissue was markedly stretched. There was no distension of veins of the right leg, but slight distension of veins of left, indicating that the growth was making greater pressure on the left iliac vein than on the right.



as follows: Menstruation began at fifteen years, moderate in amount, not painful, occurring at regular intervals, lasting from four to seven days. Patient had always been strong and healthy until this pregnancy. Mother died of cancer of the stomach; sister died two weeks after operation for ovarian tumor. History otherwise negative.

October 11, five weeks after delivery, I took her to the Johns Hopkins Hospital, and Dr. Howard A. Kelly performed cystectomy for the removal of an enormous cystoma multilocularis.

The following notes were made on her admission: Patient markedly emaciated, finger tips bluish, typical facies ovarianica, features somewhat drawn, nose prominent and pinched expression. Legs and arms

Measurements: Circumference at umbilicus, 110 cm., increased by deep respiration, 1 cm.

Circumference at ensiform cartilage, 100 cm.

Circumference at symphysis pubis, 97 cm.

Distance from umbilicus to ensiform cartilage, 29 cm.

Distance from umbilicus to symphysis pubis, 27 cm.

Distance from left sup. spin. process to umbilicus, 34 cm.

Distance from right sup. spin. process to umbilicus, 35 cm.

Palpation: Distinct, tympanitic note extending from ensiform cartilage to either mammary line, where it became duller, but still a flat tympany, gradually

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shading off to dulness in the flanks, continuing around the tumor to the opposite flank, where it again became tympanitic. Percussion wave felt on slightest touch of abdominal wall. In addition to the deep fluctuation wave, there seemed to be a superficial wave, as though there was superficial liquid on top of tumor.

Auscultation: Nothing heard; prints of stethoscope left on abdominal wall after the slightest pressure, showing marked edema of that region.

Diagnosis: Cystoma ovariana multilocular lying to right side, a number of small loculi lying on the left.

Diagnosis—Cystoma ovariana multilocularis.

the arm down into the pelvis, finding broad ligament and clamping it with forceps. The outer margin of the omentum was bound on the right, and so on across into the left flank, clamping close to colon. The tumor was then rolled out into a dish releasing the rest of the adhesions up under the stomach to the mesentery close to the vertical column. The adhesions to the uterus, rectum and in the pelvis were universal, some oozing. The broad adherent pedicle was clamped off and the mass removed. Catgut and silk ligatures were applied to the omental stump, the pedicle tied off and three catgut ligatures were tied to the oozing mesentery, uterus, bladder and rectum. The omen-



Complications: Enormous growth, extensive adhesions from under stomach to pelvic floor. Universal omental adhesions.

Operation: Cystectomy.

Patient emaciated, feeble; pulse, 120 before operation. Incision 15 cm. long, letting out a large quantity of discolored ascitic fluid (2 litres); tumor, a soft, friable, pulpy mass; large vessels running down vertically over the mass, due to adherent omentum, from its celiac insertion to anterior pelvis, where the whole lower end was completely covered in, and was densely adherent to the bladder.

The operation was begun by running

tal end was left on the bladder, but was tied off down to it with catgut ligatures.

The points of special interest to me in this case were the very rapid growth of the tumor, no evidence of any growth before conception, and its having attained such proportions in seven months; the tolerance in carrying the child to the seventh month, and the remarkably well-developed child under such conditions; the stationary temperature for five weeks, the very rapid recovery after operation with such extensive adhesion. The patient was well and walked away from the hospital the twenty-fourth day after operation.

The query (to me) has been should the cyst have been tapped during pregnancy, and would that have allowed the pregnancy to go to term? What effect would the tapping have had on the operation following?

I at first felt chagrined at not being able to diagnose the cyst before delivery, but recently a case came to me from one

of our best obstetricians, where he had diagnosed a tumor in a woman pregnant seven months, and advised operation. I attended her two months later and there was not a complication. In over a thousand cases at that date, 1895, this was the first case I had ever had complicated with ovarian cyst.



H. H. Clayton writes to *Science*, under date of March 22, that on that morning, while A. E. Sweetland and he were measuring clouds, at the end of a base line 1178.4 metres in length, extending from the Blue Hill Meteorological Observatory to the base of Blue Hill, they succeeded in measuring, with their cloud theodolites, the height and velocity of a flock of geese. So rapid was the flight that the flock was visible only about two minutes, but during that time two sets of measurements were taken with the theodolites on the leader of the flock. The calculations

gave the height as 905 feet above the Neponset River valley, or 960 feet above sea level, and the velocity of flight as 44.3 miles an hour. The direction of flight was from southwest to northeast. The wind at the time of the measurement was from the west-northwest, with a velocity of eight miles an hour. On a previous occasion, as described in *Science*, these observers found a flock of ducks flying from the northeast at a height of 958 feet, with a velocity of 47.8 miles an hour. The close agreement between the two results is suggestive.

## HYSTERIA IN EARLY LIFE.\*

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Through the labors of the French school of neurologists in particular, hysteria has been given the recognition it deserves as a distinct, fixed clinical entity, with a train of symptoms as characteristic as those of any of the acute specific infections or intoxications. That the disorder has a pathology of its own I have no doubt the results of future investigation will demonstrate, but as yet we need more knowledge, especially in the domain of physiologic and pathologic chemistry, before we may hope for a solution of this aspect of the problem. From both inference and analogy it seems not unreasonable to believe that hysteria depends essentially upon metabolic or nutritional changes in the cellular elements of the central nervous system, in consequence of which there may result alterations in function and changes in relation, whence arise the varied and protean symptoms of the developed disease. It may not be extravagant to hope that further refinement in staining methods, in which there has been so remarkable an advance in the past decade, may make possible the detection of changes in nerve-cells that at present elude closest scrutiny by existing means of investigation.

Though we retain the name, which perpetuates the original erroneous conception of its pathology, we have learned that hysteria may exist not only in women deprived of their uteri, but even in men as well. Hysteria respects neither sex nor age, although by far more common in females than in males, and comparatively rare in early and in late life. The explanation of these differences must be looked for in the varying susceptibility and receptivity of the nervous system with regard to those influences to which in a general way we have learned to attribute etiologic activity. According to statistics cited by Lloyd in *A Text-Book of Nervous Diseases* (edited by Dercum), hysteria is

most common in women at the age of twenty years. Briquet found one-fifth of the cases in the female sex to occur before puberty; and rather more than one-third between the ages of fifteen and twenty. Batault found the disease most frequent in men between the ages of ten and twenty. Mills, in the *Cyclopedia of Diseases of Children* (edited by Keating), reports a case of catalepsy or automatism in a girl two years old, and refers to a similar case reported by Jacobi in a child three years old. He cites also a case of hysterical paralysis in a girl eighteen months old, reported by Gillette. The evidence goes to show that hysteria, while perhaps not so uncommon in childhood as it appears to be, is yet sufficiently so to warrant the report of a small group of cases illustrating some of the phases of the disease as it appears in early life, as well as some of the difficulties and doubts that at times attend its recognition. The causes, symptoms, course and treatment of hysteria are much the same in children as in adults, except in so far as these are influenced by modifications dependent upon differences in mental and physical growth and development.

**CASE I.**—N. G., a schoolgirl, nine years old, presented herself in the clinical service of Dr. Morris J. Lewis, at the Orthopedic Hospital and Infirmary for Nervous Diseases, on April 21, 1897, with the statement that about a month previously she had been much frightened by being placed by her father, who was at the time intoxicated, in a room apart from the rest of the family. The child cried and complained of feeling sick. A few hours later, during the evening, while in bed but still awake, the right hand and arm began to tremble and soon the head likewise to shake. In the course of several hours more the left hand also began to tremble. There was no convulsive movement and no loss of consciousness. The little patient now fell asleep and slept quietly through the night. On arising the next morning the movements re-

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turned, and, besides, there occurred in the lower extremities rapid movements resembling those made by a horse in trotting.

In this attack it is said that consciousness was lost, the eyes being closed and the teeth being gritted, but the tongue was not bitten. The attack lasted about five minutes, and at its close the child was quite itself again and in nowise dull. In the course of the succeeding day some ten or twelve attacks of like character took place, but sleep was undisturbed during the night.

On the following day the attacks were repeated with about the same frequency. In the next three weeks the number of attacks averaged fifteen a day, but after this it reached as high as thirty. In none had the tongue been bitten, but the mother maintained that consciousness was lost in all. Each attack was followed by headache. No attack was known to have occurred during sleep. For a week the gritting of the teeth had ceased.

A number of attacks occurred at clinic and presented the following features: While sitting, the child suddenly began to droop her head, then to move it forward and backward. Next the right hand began to tremble, and then the left. Finally the arms and legs also were set in active movement, as in the process of walking on all fours. Frothing at the mouth occurred. The eyes were closed and the child appeared unconscious. The attack terminated in clenching of the fists and tonic rigidity of the members. The mental state following was unobscured. In the intervals between attacks there was tremor of the right hand, which ceased with the onset of the attack, and also when the child's attention was diverted or engrossed, as in conversation.

The child was well nourished and of good color. Gait and station were normal; the grasp of the hands was puerile; the knee-jerks were capricious. The action of the heart was rhythmic, its sounds clear. There was no obvious derangement of tactile or painful sensibility. In the family history the only points worthy of note are the occurrence of chorea in a cousin and of rheumatism in the mother's family.

The patient herself had been born at

term, had nursed at the breast for sixteen months and had been free from noteworthy illness and from convulsions during early infancy. She began to walk at the age of fifteen months, and was rather late in speaking. At the age of two she suffered from measles and at four from whooping-cough. Following the latter persistent internal strabismus had been noticed. Epistaxis had been frequent for four years, occurring mostly at night, but apparently being unattended with evil consequences. For a year the bleeding from the nose had been replaced by periodic headache, which was greatly relieved by the prescription of glasses correcting a high degree of hyperopia and astigmatism. There were no changes in the fields of vision. The child had suffered frequently from attacks of croup. She cried upon the slightest and even without any real provocation.

She was directed to take ten drops of peppermint water and the correction of the refractive error was undertaken, and she was told that if she did not speedily improve she would be placed in the hospital. The attacks at once moderated in frequency and severity, and the general condition was substantially improved.

There can, I think, be no doubt as to the hysterical nature of this case. Though lacking in some of the details of the complete clinical picture of hysteria, it yet presents so many distinctive features that mistake seems scarcely possible. The mode of onset, the character of the symptoms, the paroxysmal seizures, the emotional mobility, and finally the results of treatment, constitute such a grouping as is not encountered in any other disease. The loss of consciousness, whether merely apparent or real, while of course suggestive of epilepsy, cannot be held to exclude hysteria, as such true loss may, I believe, attend the latter as well as the former condition.

**CASE II.—N. B.**, a girl, nine years old, came to the clinical service of Dr. Lewis at the Orthopedic Hospital and Infirmary for Nervous Diseases on April 14, 1897, with a history of several times daily for two years going through a series of peculiar movements, which consisted essentially in dropping the arms and spreading out the hands as if to catch herself

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in the act of falling, without loss of consciousness. She had had, besides, three convulsive seizures, in which she kicked vigorously, rolled up her eyes, etc., and in which it was thought that consciousness was lost. In some of the attacks urine was passed involuntarily, but the anal sphincter was continent and competent. In none was the tongue bitten. The child was exceedingly emotional, crying readily and being subject to attacks of causeless laughter. At times there was headache. The knee-jerks were preserved and station was steady. The dynamometric record was ten in each hand. There was no sensory derangement. The family history showed no evidence of neurotic predisposition. The little patient herself had never been seriously ill.

Under date of June 21, 1897, it is noted that the onset of the attacks followed the eating of a quart of peanuts. At that time the child had a continuous series of convulsions for two days. At present it is said that the seizures are repeated at intervals of five minutes during the day, although but one occurred during the quarter of an hour that the child was under observation, and in this, which lasted but a few seconds, the child doubled up on its mother's lap slightly and dropped its head forward. It might have fallen had it not been supported. The attacks take place not only in the presence of others, but also when the child is alone, and she has injured herself in several. They are superinduced by the ingestion of such articles of food as meat, cabbage, tea, coffee, etc.

The child is exceedingly pallid; its digestion is poor and its bowels constipated. Pin-prick is everywhere readily appreciated. The heart is said to beat rapidly at the close of the attacks, but auscultation fails to disclose evidence of organic disease. Dr. A. G. Thomson was unable to detect any abnormality of fundus or of muscular balance. Hypnosis was attempted, but apparently without success.

While some of the features of this case are strongly suggestive of hysteria, others are not less strongly suggestive of epilepsy, and without further study the discrimination is by no means easy. I admit that the criticism may be justly made that the doubt surrounding the diagnosis

should be sufficient to exclude the case from this report, but if there is no other justification for its inclusion I may be permitted to retain it in order to emphasize the difficulty with which the differentiation of the two diseases is sometimes attended, and to dwell briefly upon the fact that the same patient may be the victim of both.

This difficulty in diagnosis, and especially as it occurs in children, is illustrated by a case that came under observation only to-day in the clinical service of Dr. Lewis at the Orthopedic Hospital.

**CASE III.**—A nervous mother brought her little daughter of seven to learn what was the matter with her. The child was pale and ill-nourished, but had no definite complaint. She had fallen about a month ago, striking her nose and suffering a copious epistaxis, which had been repeated some three weeks later. About two weeks ago the child was seized with severe headache, followed by high fever and delirium, continuing for two or three days. After the lapse of a week, the symptoms reappeared, lasting now, however, only throughout the night. Inquiry elicited the fact that two years ago the child had suffered from "congestion of the liver," in the sequence of which she was unable to walk for a period of some weeks. Gradually, with careful training, the power of locomotion returned. There had never been a convolution or loss of consciousness, and there was no undue laughter or weeping.

Needle-prick on the right hand was less readily appreciated than upon the left; and the point of the needle was said to be felt upon the right side of the face as a piece of hot iron. Some doubt may be felt as to the results of this sensory examination, inasmuch as the responses of the child appeared to be influenced by the tendency of the questions. However this may be, the girl submitted bravely to painful impressions capable of causing an older person to wince.

The knee-jerks were preserved; the gait was normal; the heart was rather over-acting, though entirely rhythmic, and its sounds were clear. Hypnotism was attempted, and appeared successful. At one time in the course of this procedure the child, when directed by her mother to

open her eyes, maintained that she was unable to do so. I have ventured to stamp this case with a diagnosis of hysteria, though fully alive as to its vulnerability and the possibility of deception on the part of both patient and clinician.

CASE IV.—S. H., eleven years old, was brought to the clinical service of Dr. Lewis Brinton at Howard Hospital by her mother, a music teacher, having two other children, and herself profoundly neurotic, with the statement that the child was suffering from spinal trouble, which manifested itself by the appearance of a swelling at the back of the neck. The mother related that she had suffered similarly during her pregnancy with this child, and this condition in her was attributed to "falling of the womb." Both mother and child suffered from time to time from sick headache, with nausea and vomiting. The general condition of the little patient was stated to be sometimes better and sometimes worse. She was said to be quick-tempered and self-willed, and she cried and screamed at times, particularly if not permitted to have her own way; although there had never been a convulsion or loss of consciousness. At times also there was undue laughter. For various reasons, but especially on account of her emotional mobility, the child had not attended school regularly. Her appetite was described as ravenous; the bowels were regular and digestion was good. When headache and nervousness were especially marked the child vomited repeatedly, but improvement ensued in the course of some hours, following the taking of food. Sleep was variable, although as a rule it was good. The knee-jerks were preserved, and common and painful sensibility appeared to be intact. The pupils were full, equal, regular and reactive to light. The action of the heart was rhythmic, its sounds clear. Hypnosis was attempted on two occasions, but without success.

I look upon this case as one of hysteria, somewhat ill defined though it be. While it presents none of the obtrusive stigmata of that disease, it is possible that time and further observation may lead to the detection of some one or another of the more characteristic phenomena. The intimate character of a disease is to be

learned from a study of its anomalous as well as of its more typical forms. Neurotic parents are capable of exerting a deleterious influence upon their offspring through both heredity and association.

CASE V.—L. S., a colored girl, fourteen years old, complained of pain and soreness in the region of the stomach, which proved to be sensitive to touch. She was unable to skip and jump and play like other children on account of the resulting distress. She suffered from nausea occasionally, unattended, however, with vomiting. There was complaint of a good deal of headache, although correcting glasses were worn. There were also present tic-like movements of the eyelids. The appetite was good, the tongue coated, the bowels constipated. Menstruation had appeared for the first time some nine months previously, and, although a little irregular, was unattended with pain. During the preceding month there had been suppression of urine for three or four days on two or three occasions. The urine itself was said to be clear and yellow. For two years the girl was subject to what were described as faints, in which she did not fall, though she seemed to lose consciousness. In these she clenched her fists, and on one or two occasions she kicked, but she had no well-defined convulsion. The duration of the attacks was said to range from five to thirty minutes. At the conclusion of the attack the child seemed exhausted and she felt drowsy. There was at no time undue laughter or causeless weeping. The attacks recurred two or three times a week, at intervals of two or three weeks. There had been a free interval of as long as three months. No definite cause could be assigned for the attacks, though they were associated in the mind of the mother with the function of menstruation, to which, however, their frequency bore no apparent relation. Nothing also was known that seemed to be capable of inhibiting or aborting the attacks. The child did fairly well at school, although apparently without ambition. There was no history of similar disease or of other form of nervous disorder in the family. The child had never suffered from any serious illness. She was considered sensitive. The knee-jerks were preserved, the patient jumping when the patellar tendon

was struck and also in anticipation of a blow that was threatened but not struck. There was no gross sensory derangement. The heart displayed no abnormality. Dr. C. Y. White, by whom the patient was referred to Dr. Brinton's clinic at Howard Hospital, informed me that the patient was susceptible to hypnotism, but her failure to return prevented further study of the case.

Although I believe this case to be one of hysteria, it would appear to be the part of wisdom to withhold for the present a final diagnosis, in order that further study and perhaps personal observation of one of the attacks may yield evidence of such a character as will permit of an unequivocal and unreserved conclusion.

CASE VI.—R. F., a schoolgirl, fourteen years old, applied at the Orthopedic Hospital and Infirmary for Nervous Diseases, in the clinical service of Dr. S. Weir Mitchell, on July 3, 1896, with a history of having been frightened some eight months before by masqueraders. She fell to the ground and was unconscious for three hours. Her jaws were locked and she breathed heavily. After consciousness returned she went to sleep and remained in bed for several days on account of weakness. Some two months later, following a recitation, the girl lay down and became unconscious and exhibited occasional twitches of the muscles. This attack lasted for three or four hours, and again several days were spent in bed. A third attack occurred after an interval of three months, without known cause. In this also the girl lay down, appeared unconscious, with her eyes open, and became rigid, but she did not bite her tongue. This attack continued for four or five days, during which the patient regained consciousness at times for periods of fifteen minutes.

At other times she appeared as if dead, being unable to see or talk. She took a little food, both liquid and solid. At the time of application the attacks recurred almost weekly, lasting three or four days at a time. The seizures were characterized by rigidity rather than active movement. After some of the earlier attacks there was inability to see, walk or talk. In some of the attacks the patient scratched herself, in some she pulled her

hair, in some she kicked at those about her, and in some she made attempts to bite. In some she groaned a good deal, and in others the rectal and vesical contents were passed incontinently. Some of the attacks had occurred while the patient was alone and some at night in bed. Between the attacks she was often dull, despondent and uneasy. At times, and especially following the attacks, she cried freely and at times she laughed unduly. At times, further, she was unusually obstinate. Appetite, digestion and sleep were good, and the bowels were regular. The knee-jerks were preserved and the pupils were full, equal, regular and reactive to light. There appeared to be general diminution of sensibility to pin-prick. Of the family history it need only be said that the mother, fifty-three years old, was a nervous invalid. The patient herself had had measles and whooping-cough in childhood and from time to time suffered from bilious attacks. Menstruation appeared first at the age of thirteen and was irregular and painful. In the inter-menstrual periods pain and swelling over the left ovarian region were complained of. Prior to the present illness there had never been a convulsion.

The hysterical nature of this case appears so obvious that further comment seems uncalled for.

CASE VII.—M. M., a schoolgirl, fourteen years old, applied at the Orthopedic Hospital and Infirmary for Nervous Diseases on September 14, 1896, in the clinical service of Dr. Wharton Sinkler, on account of a coarse, rapid tremor of the right upper extremity, most pronounced in the hand, which had made its first appearance, without known cause, a month before, ceasing after a week and being resumed after an interval of three weeks. The movement was least marked during rest and appeared to be increased on voluntary movement. It ceased during sleep. No derangement of sensibility and no limitation of the visual fields could be made out on superficial testing. The dynamometric record was 6 on the right and 23 on the left. The knee-jerks were feeble. The mother of the child was distinctly neurotic. The little patient herself had had four attacks of chorea, two involving the right side and two the left, the first

at the age of six years and the last at the age of nine.

Under date of June 21, 1897, it is noted that the tremor has disappeared and reappeared thrice since the previous record. Both the girl and her mother consider her well at present, although on investigation it is found that the right hand is tremulous when extended, and inquiry reveals the fact that the shaking appears on excitement or after muscular activity, but only, or at least only in marked degree, in the right hand. There was no impairment of painful sensibility.

This case illustrates one of the forms of motor disturbance that may attend hysteria. In addition to simple tremor there may be choreoid, or tie-like movements, or spasm or convulsion, or paralysis or paresis.

CASE VIII.—In conclusion I wish to refer briefly to a rather remarkable case, in a girl of sixteen and a half years, in whom hysterical manifestations had been present for three years or more. The patient's mother was distinctly neurotic and the father suffered probably from some organic disorder of the brain. At the age of thirteen, after some opposition, the girl fell to the ground and became rigid and blue and so remained for perhaps half an hour. Subsequently she wept. In the following year she felt certain vague sensations, with perhaps some perversion of consciousness, after witnessing an accident in the laundry in which she was at the time employed. Some months later she was found wandering about at a distance of some six miles from home, and another month later at a distance of eighteen miles or more. Menstruation set in shortly after this last escapade and recurred irregularly, with pain. At about this time the girl began to have staring attacks, which were attended with convulsive movements. In the following year she did fairly well, but at the end of this time she again walked away from home a distance of eighteen miles. About a month afterward, in conjunction with some sort of seizure from which her father suffered, the girl slept for four days, taking only liquid but no solid food. About four

months later she went irresponsibly to Washington, D. C., and passed through a varied experience. Of the details of these several expeditions the girl maintained she had little or no knowledge and only faint and ill-defined recollection. She was readily susceptible to hypnotism, and while somnolent numerous facts and incidents connected with the journey to Washington and her sojourn there for several days were elicited. There was diminished sensibility to pin-prick upon face, hands and legs in irregular distribution. The pharyngeal reflex was preserved. From recent information I learn that the girl was a short time ago found under suspicious circumstances in a not entirely reputable neighborhood, and she has been since sent to a reformatory institution. At the time the patient was under my observation I could not convince myself of the entire reliability of her statements, and I am yet unable to decide to what extent she endeavored to practise simulation or deception. I was and am still inclined to believe that many of the symptoms have an hysterical basis, and I would be loth to deny that the several escapades were manifestations of a form of modified consciousness. In addition to the nervous disease in her own immediate family, the fact that an aunt is a mesmerist and has exercised some influence over the patient is not without interest.

I have in this communication endeavored by the report of cases to supplement what others have already done in directing general professional attention to the liability of children to suffer from hysteria, and I would further emphasize the importance of its early recognition and intelligent treatment. I wish to reiterate the fact that hysteria may occur in either sex at any time of life. The disorder is not rarely associated with other disease of the nervous system, the existence of which would seem to predispose to the development of hysteria rather than to exclude the likelihood of its coexistence.

My thanks are due Drs. Mitchell, Sinker, Lewis and Brinton for their kindness in permitting me to make use of their cases.

## COMMUNICATIONS.

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### MODERN MEDICAL EDUCATION.\*

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Since the first meeting of the American Academy of Medicine in this city, September 6, 1876, remarkable changes have come to pass. The scope of medicine itself, the character of medical teaching, the requirements for graduation have, in the short period of the minority of a native-born citizen as fixed by law, undergone an evolution little anticipated by the handful of earnest men who, under the leadership of Traill Green, of Easton, then banded themselves together to organize an association whose objects are:

1. "To bring those who are alumni of classical, scientific and medical schools into closer relations with each other."
2. "To encourage young men to pursue regular courses of study in classical and scientific institutions before entering upon the study of medicine."
3. "To extend the bounds of medical science, to elevate the profession, to relieve human suffering and to prevent disease."

In the interval since the date of that remarkable meeting, the science of bacteriology, then viewed askance by the leading teachers and practitioners as something new and strange, has become a dominant influence in medicine. It has revolutionized pathology, it has recreated the art of healing in every department and has given us a new surgery, in whose footsteps, with urgent stride, follows a new medicine of not less brilliant promise. It has enabled the gynecologist to realize and surpass the brightest hopes of McDowell, Marion Sims and the Atlees. It has rescued hygiene from empiricism and placed it upon a sure basis of scientific facts. It has elevated the specialties above the narrowness of circumscribed work, and shown the specialists that for the practice of their art much more is

needed than an easily acquired operative technique and a little manual and intellectual dexterity.

It has demonstrated the absurdity of much of our traditional drugging and given us new systems of healing, fruitful with present achievement and pregnant with promise of greater things, while it has indirectly revived and defined the scope of measures of treatment, such as diet, baths and climate, for which we do not send to the apothecary. It has warned the investigator in the laboratory that the study of the causes of diseases which are ever ready, sure, swift and certain of effect, is to-day a much more promising field of research than the too curious analysis of the special qualities of uncertain and variable drugs. In point of fact, bacteriology, the youngest of the medical sciences, scarcely known as a science to those who organized this body, has swiftly passed to the front and now controls almost every department of the complex organization of the medical sciences.

While these changes have been going on, other developments of great importance have been taking place. Histology has assumed a definite place in the curriculum, and anatomy can no longer be studied without the microscope. The teachings of physiology, yearly more definite and precise, bear with every advance a closer relation to the requirements of practice, so that no alert practitioner feels secure unless he can read his latest treatise upon physiology carefully through at least once a year. Physiologic chemistry has made corresponding advances.

Embryology must be taught as indicating the structural basis of forms and the primary relations of tissues, while comparative anatomy is essential to a complete knowledge of the anatomy of the human subject. Some knowledge of medical jurisprudence was at one time thought necessary for the expert, but to-day every

\* Address of the President of the American Academy of Medicine.

† Professor of the Practice of Medicine and of Clinical Medicine in the Jefferson Medical College, etc., etc.

practicing physician must be informed of the mode of procedure in judicial inquiries, since he may at any moment be called upon to act for others and himself in a case involving questions of mental alienation, testamentary capacity, the responsibility for injuries by accident, or homicide.

These changes in the scope of medicine have not taken place without corresponding and far-reaching changes in the organization of the medical profession, and in its relations to the public at large. Very often these changes have been like the growth of the knowledge to which they owe their origin, gradual and almost imperceptible, but very often they have been abrupt and violent. Progress means readjustment, and this cannot take place without occasional perturbation and commotion—a fortunate circumstance, since it enables the too conservative to become aware of the fact that something is going on. I may remark in passing that constant readjustment and occasional violent reaction are inherent to intellectual advance, and when they cease to disturb our quietude stagnation ensues.

In the medical life of the last quarter of a century, especially in this country, the perturbations and violent readjustments of advance have been principally and most keenly felt in the teaching institutions from some of which the advances have originally in every instance directly or indirectly proceeded.

The shock has usually been violent and the adjustment tardy, a fact for which we find an adequate explanation, first in the conservatism of scholastic institutions, secondly, in the tenacity with which men **cling to customs** which they have come to look upon as vested rights.

Tardy as they have been, however, the successive adjustments of the colleges to the advances of knowledge have been complete, each in its turn, and as new adjustments take place they will be as nearly as possible adequate to the essential requirements of particular times and circumstances. This prediction rests not only upon the experience of the past, but upon the fact that while the knowledge upon which medicine rests is scientific, the application of that knowledge is an art, and subject to the conditions by

which art in all its manifestations is influenced, not the least of which is competition.

Here we observe a fine example of action and reaction—increasing knowledge calling for better teaching, and better teaching in its turn tending to the advance of knowledge.

The character of the teaching has, in fact, during the period referred to, undergone changes scarcely less radical than the subject-matter to be taught.

It has become less didactic and more demonstrative; less rhetorical and more explicit; less showy, but more convincing. The seven learned professors and single demonstrator that constituted the faculty of a well-equipped school in that day, presently found the growing task too much for them. They had not time to do the work, and worse still, they realized ere long that their combined knowledge was unequal to the undertaking. They did not know enough.

So it came to pass that with each annual announcement new subjects were placed in the curriculum and bright young fellows, or a trained specialist or two were taken on as teachers. And this went on, until to-day the teaching force of a modern medical college of the first rank, including professors, assistants, lecturers, demonstrators and the members of the staff of the attached hospital and dispensary service is to be counted by the score. Indeed, malice has observed of more than one such institution that the occupants of the chairs outnumbered the occupants of the benches.

As the old Faculties had not time to do the increased teaching, so the student found his time too short, and the time element became a factor in the process of evolution. First, the term was lengthened a little, then more. This proving insufficient, a year was added to the course, and later another year. Now, instead of two annual sessions of scarcely five months each, the student of medicine must attend four annual sessions of seven months or more.

The number of sessions is now determined in several of the States by law, but the public opinion that has made itself manifest by legal enactment in some places, is growing in power all over the

land and the time is not far distant when the two and three years' schools will cease to exist because men will be ashamed of their diplomas. Such schools, it is true, have thrived for a season, but their prosperity has been short-lived, first, because it arose from a shifty expediency, and secondly, because the sober after-thought of the American people is right. The progressive schools have sometimes had poor classes during the periods of transition, but the change has, in almost every instance, been followed by a notable increase in the number of students.

The requirements for graduation have undergone progressive changes not less important. The examinations have long since ceased to be perfunctory. They are now tests, and, in most instances, severe tests of the knowledge of the applicant for the degree in the fundamental branches of medical science, and not rarely in the application of this knowledge at the bedside in the diagnosis of an actual case and in formulating a scheme of treatment. They are sometimes oral only, frequently written, and occasionally both written and oral.

In the written examinations the use of improper aids is frequently, but not always, prevented by obvious and unfortunately necessary measures. In the clinical branches, the possibility of extraneous help or collusion is reduced to a minimum by the character of the questions. Twenty years ago the hope that the honor system would ever obtain in examinations for the doctorate in medicine would have seemed chimerical; to-day there are sane teachers who confidently expect its arrival. Surely the standard of honor ought to be as high in medical as in military life.

In many schools the final averages in particular branches are made up of the results of several examinations conducted by different teachers—the professor, a demonstrator, and the lecturer in the special department, each counting a pre-arranged percentage of the whole. The examinations no longer being a mere form and their subject-matter being purely technical, no student, however clever, who has neglected his work or spent his time in riotous living expects to pass by chance—to "skin through" in the words of an

earlier time. Indeed, it not infrequently happens that students who have among their classmates the reputation of being fairly well prepared, absent themselves from the examination in one or two branches at the last moment, and defer graduation for another year rather than take the risk of being actually plucked.

The development of medical education in the twenty-one years which measure the life of this Academy, in the scope of the knowledge to be acquired, in the character of the instruction, and in the requirements for graduation, constitutes a remarkable epoch in the history of medicine. Disregarding the post-graduate schools, the aim and scope of which are not immediately considered in this argument, the changes have been so great as to have brought into full bloom a flower conspicuous in the brilliant intellectual development of the end of our century—the higher medical education.

It is not assuming too much to assert that this body has played an important, though inconspicuous, part in bringing about these changes, fraught with so much importance to the well-being of the profession and to society at large. It would be strange, indeed, were not this the case. The very purpose of our organization was to promote such interests. The papers that have been read, the discussions that have followed, the enthusiasm that has been aroused, the force of association, the weight of opinion, developed and fostered by the contact of men interested in the promotion of the highest professional aims have, during these years, exerted a combined influence upon the profession which has been potent for good. I congratulate you that during the existence of this body many of its highest aims have been achieved.

A word in passing in regard to examining boards and the license to practice. It is a happy commentary upon the purity of professional aims that the most advanced medical educational institutions have been the most prompt to make sacrifices to the common good. One after another, in State after State, the colleges have relinquished a fundamental and most important charter right, namely, that the diploma should confer upon its recipient the right to practice medicine.

The movement for separate legal requirements, first registration, then State examination, had its origin in those interested in the higher medical education, in many instances in the Faculties themselves of the most advanced and well-equipped schools.

This movement, it is true, was aimed primarily against quacks of the itinerant kind and the diploma mills, but in its more recent development it has dealt serious blows at the inadequately equipped and officered second and third rate legally chartered colleges. It is certainly a remarkable fact that educational institutions should, in the best interests of a common profession, voluntarily relinquish the most important franchise conferred upon them by charter.

What the effect of the present tendency toward reciprocity among the States in the granting of licenses and the system of inter-State indorsement may have upon certain of the schools remains to be seen. Greater uniformity of facilities for instruction will become necessary. Geographical situation and local conditions in some instances seriously hamper, in others render absolutely useless efforts to supply adequate clinical instruction. There are schools in which the elementary teaching is of the best character, that cannot secure the facilities for clinical work.

The lengthening of the term from three to four years cannot, under these circumstances, meet the requirements of the case, but if a general comity in regard to the license to practice is to be established by the boards of different States, the law must regulate the length of the time of instruction and all boards must equally require that applicants for the license should have attended a four years' course. In that case students will naturally repair to those schools in which the fourth year is occupied in clinical work. This would constitute in many instances a serious misfortune, first, because of the unwieldiness of enormous classes, and secondly, because the non-clinical instruction in small college towns may be, and often is, of the highest character.

I would suggest that some of the difficulties may be overcome if students presenting certificates of having success-

fully passed their third year examinations should be admitted to the schools having large clinical facilities without examination for the fourth year, and be permitted to return to the college from which they came for graduation. This would, it is true, be a make-shift, but it would tend to equalize the opportunities of the students in different sections of the country and thus render feasible an inter-State reciprocity among the licensing boards.

Equally important is the movement toward uniformity of requirement for admission to the medical schools. It is at this point that the barrier must be set up by which men unfit for professional life, either by lack of capacity or inadequate early education, are to be saved the waste of time and disappointment attending failure to successfully pass the examinations either in course or final. So important has this matter appeared to those interested in medical education that the degree of Bachelor of Arts or its equivalent has already been made a preliminary requirement in one medical school and is announced to go into effect in two others.

The importance of this measure being granted, serious discussion has arisen as to how the prolonged course of four years in a collegiate department and four years in the medical school can be avoided. The president of one of our great universities has gone so far as to advocate the shortening of the collegiate course to three years. By another plan the student in the academic department is permitted to present himself for the final examination at the end of the third or junior year. If successful, he then receives a certificate to that effect. This certificate entitles him to begin the course in medicine, the degree of Bachelor of Arts in the academic department being conferred upon him with his class at the end of the ensuing year.

Should such a degree as a preliminary requirement be generally adopted by the medical schools, some expedient by which the academic course can be shortened a year will be a necessity, since the technical medical course cannot be shortened even in the case of students who do biological work as electives, without detriment to their medical education. Eight

years of study prior to obtaining the doctorate in medicine and the license to practice, constitutes a longer period of time and involves a greater expense than the majority of aspirants for honors in the medical profession can afford. This fact has added force when we consider the time spent by many graduates in serving as hospital internes, and in other work for which they receive no pecuniary recompense.

We, as a working society, have seen not only the wonderful advance in medical education of which I have spoken, but we have also seen the organization of the College Association, one of the objects of which is to make that advance uniform and permanent. We have witnessed not only the enactment of laws by which in many States the license to practice can only be obtained by successful examination under rigorously defined regulations, but also the Confederation of the State Boards of Examiners for the purpose of securing the highest degree of efficiency. In short, in medical education our eyes

have looked upon a burst of light like a new dawn, and it has been ours to have had some part in preparing for the day.

But there is more to be done, and we may count ourselves happy that we are to do much of it. For what we do as an organization we feel sure will be done well. The educational problems are far from being yet solved; the relations of the profession to the State are not yet well defined; questions as to expert testimony are still vexed; the status of medical men in armies and navies is not satisfactory; hospital and dispensary abuse is a crying evil; the growth of the commercial spirit is a dry rot within our ranks. Here are problems for us to work out—problems of great moment to us as members of the noblest of professions. Individuals may toil at them and do good, but if we as an association make them the objects of our united labors, we will make ourselves felt as no single man or many single men working apart can ever, no matter how great their individual gifts and energy, succeed in doing.

#### An Anachronism.

It is difficult for people who have not seen the plague face to face to realize that the horrors of the scourge of the Middle Ages are possible in this year of our Lord 1897.

Where are our doctors? What are our sanitary engineers doing? What has become of the plumber, with his traps and drains and cut-offs and lengthy bills, that all these guardians of the public health should allow such a terrible outbreak of violent disease to half depopulate one of the greatest cities of the world and spread possible contagion to the four quarters of the globe?

People looked for such periodical outbreaks in the sixteenth and seventeenth centuries, but we pityingly and patronizingly speak of those days as the "dark ages" of sanitary science, when plumbers were an unknown quantity, and medicine was but little removed from the powdered snails and pellets of medicated frogs' eyes which the doctors of China affect to-day.

But this is the nineteenth century, and its wanling half-decade at that. This is the

age of lymphs and serum and microbe-destroyers and bacteria-fighters. This is the age of Jenner and Pasteur and Koch; and yet, in the presence of such a pestilence as that from which Bombay is suffering the doctors are at their wits' end, and we might apparently as well be back in the century of Daniel Defoe.—*Francis E. Clark, in July Lippincott's.*

The well-known Bavarian priest, Sebastian Kneipp, who for the past thirty years or more has carried on his "water cure" system at the village of Worishofen, Bavaria, died recently, aged 75. In many ways he was a notable personage, and as unconventional as he was undoubtedly hard-working. The description of his daily life, which appears in his widely-read book, "*Meine Warserkur*," fully bears out this statement. Most of his "patients" became his devoted adherents, despite the fact that he was wont to treat them on occasions to a good deal of plain speaking. His opinions on medicines and diseases were highly reminiscent of the customs and habits of mediaeval times.

**CURRENT LITERATURE CONDENSED.****Implication of the Sterno-Clavicular Joint  
Occurring During the Course of  
Gonorrhea.<sup>1</sup>**

Three weeks previous a man, aged 27, had contracted gonorrhea, but the discharge had ceased at the end of a week and there was none at the time he came to the dispensary. When the gonorrhea had lasted for one week he began to complain of pain in the neighborhood of the left shoulder. The pain shifted along the clavicle, and finally he observed a painful swelling over the left sterno-clavicular articulation. At the same time the left testicle became swollen. No other joints were affected; he thought himself to be suffering from rheumatism, but medicines which he took were without effect. He had had gonorrhea four years previously, but it did not cause him much inconvenience. He had never had any sore on the penis nor had he ever observed any syphilitic manifestations.

He was very pale and thin and looked ill. He felt weak and had no appetite. There was swelling over the left sterno-clavicular articulation, entirely obscuring the surface anatomy of the part. The swelling extended on to the sternum towards the middle line and seemed probably sub-periosteal at this part. The skin was dusky-red and great pain and tenderness were complained of in the part. Any movements of the left upper extremity were accompanied by great pain and were on that account of a limited nature.

The diagnosis lay between sub-periosteal suppurating gumma over the manubrium and pyemic affection of the articulation. Against the former was the absence of history or signs of syphilis, while in favor of the latter was the fact of the patient having contracted gonorrhea a week before the commencement of the joint affection. It was decided to put him on potassium iodid, on the chance of it doing good in either affection, and he accordingly received ten grains thrice daily with fifteen grains of bicarbonate potash. The arm was supported in a sling.

In three days after this the dusky-red swollen area was white, the swelling was very much down, the pain was gone, and the patient was feeling much better generally. He was still unable to put on his coat on account of stiffness with pain on exertion. Four days later the swelling was again present, and hot fomentations were ordered, while he was directed to continue the iodid mixture. The swelling at this date was situated definitely over the joint. Two weeks after the swelling was more prominent and fluctuant. A small incision let out a few drops of reddish-yellow turbid serum, and through the wound grayish granulations prolapsed. A probe passed both outwards and inwards, along underneath the skin for an inch or so, but not into the joint.

By another week the patient could move his arm freely, the swelling was very much lessened, and at the seat of incision was a small bud of granulations. At the end of January there was still a sinus leading backwards to the joint. Below the articulation there was some thickening of the sternum, while the end of the clavicle was pulled upwards, apparently from softening of the ligaments. The joint was well defined in its surface anatomy. On account of the sinus persisting the granulations were scraped out under chloroform. Three months after, when I last saw the patient, the following note was made: The sinus had healed; there was some projection upwards of the sternal end of the clavicle, with some fixation of the joint and soft grating on movement (extra articular?). The patient was feeling quite well again.

*Remarks.*—The case seems to me to be of sufficient interest to warrant my publishing it, my object in so doing being to suggest the connection between the joint affections in gonorrhea and pyemia. Unfortunately, the surroundings of the case prevented my investigating it bacteriologically, and thus I am unable to say what micro-organisms, if any, were present in the joint effusion. The characters

<sup>1</sup> GEO. HENRY EDINGTON, M.D. GLASG., M.R.C.S. ENG.

of the affected part both before and at the operation resembled those seen in pyemia, added to which is the fact of the common selection of the sterno-clavicular articulation in that constitutional condition. The effect of medical treatment is interesting, the exhibition of iodid being followed by very sudden improvement, and this again by gradual progression towards suppuration. The behavior of the part after operation was very satisfactory, and the patient was left very little the worse for his illness. Without drawing conclusions from a single case, the following points are of interest: (1) Early appearance of joint complication in the course of the disease (seventh day), associated with orchitis; (2) acute process, affecting periarticular tissues subsequently; resulting deformity of joint; (3) response to medicinal treatment and relapse; and (4) subsequent favorable termination of the case after operation.

#### The Antitoxin Treatment for Diphtheria in America.<sup>2</sup>

The publication of the second report of the American Pediatric Society on the antitoxin treatment of laryngeal diphtheria is based upon the replies received from sixty thousand practitioners, who were circularized upon the subject. The circulars were distributed throughout the United States and Canada, and the main points upon which information was sought were: (1) What percentage of cases of laryngeal diphtheria recover without operation under antitoxin treatment? (2) What percentage of operated cases recover? A total of 1,704 cases were reported, and submitted to analysis. Among these there was a mortality of 21.12 (360 deaths). The operations employed were intubation in 637 cases, in which the mortality was 26.05 per cent.; tracheotomy in 20 cases, with a mortality of 45 per cent.; intubation and tracheotomy in 11 cases, where the mortality was 63.63 per cent.; while in 1,036 cases not operated upon, or 60.79 per cent. of all the cases, the mortality was 17.18 per cent.

The report points out that before the use of antitoxin it was estimated that 90 per cent. of laryngeal diphtheria cases required operation, whereas now, with the

use of antitoxin, 39.21 per cent. require it. Moreover, the percentage figures have been reversed, inasmuch as formerly 27 per cent. approximately represented the recoveries, while 27 now represents the mortality. That is to say, before the use of antitoxin 27 per cent. recovered; now 73 per cent. recover, even from the severest type of the disease.

It is clear, then, that these figures, regarding them as correct, afford powerful evidence in favor of the antitoxin method. The results, indeed, are such as to show that with more careful management of the cases—that is, by using the remedy early in the progress of the disease—the mortality would be still further reduced. The matter of dosage, again, is now better understood. Hitherto the tendency has been to use too little of the serum, a fact upon which the report lays much stress.

Again, with regard to the time when the serum should be used, the report recommends that at the earliest possible moment in all cases of suspected diphtheria, the serum should be given. Attention is also directed to the question of the quality of the products upon the market. Some, it is stated, of these have been found by experimentation to contain one-half to one-third of the antitoxin units indicated upon the label, and the advice is given to choose the most concentrated strength of an absolutely trustworthy preparation.

The fact that 1,700 cases of diphtheria were treated with antitoxin by private practitioners in the course of the eleven months comprised in the report, shows that the remedy is making great headway in the United States and Canada. But how is it, it may be asked, that the results in this country are so far from coinciding with those of the American practitioners? The answer is probably to be found in the fact that the serum used by British practitioners is not up to the necessary degree of potency. So far, no standard of strength has been determined upon, and because the potency varies so much, it may be upon these grounds that the results vary also. It is quite evident from the report that the antitoxin treatment of diphtheria has found favor with and is believed in by American practitioners, and the publication of the report here dealt with will undoubtedly do much to add to its still more general adoption.

<sup>2</sup> *Medical Press and Circular.*

### The Cold Tub.

The need of dogmatic medical guidance to the average medical man is nowhere more in evidence than in the matter of the cold tub. Some men there are who bathe in the open, year in and year out, and many more who every morning plunge into cold water under the somewhat tempering shelter of their own roof-tree. For the most part, such folk doubtless thrive and remain vigorous, but then it must be borne in mind that only the robust would brave such Spartan discipline. But what has medicine to say on so important a point of everyday life? So far as we know, there is no authoritatively and generally accepted dogma on the point. That which braces up the nerve-centres and circulation of the strong man might be full of danger to the weakling. So, too, with age; as the elasticity of the arteries decreases with the lapse of years, by just so much increases the risk of a sudden strain upon the capacity of the blood-distributing system. Out of all the tangle of nescience upon this subject one or two solid facts, or what appear to be such, rear their stubborn heads. For instance, who will gainsay the dictum that the chief test of fitness for the cold bath is the individual power of establishing reaction; in other words, of getting the delightful after-glow and warmth of the skin that should follow vigorous "toweling." Secondly, many people who seldom or never take a bath are, like our ancestors, healthy and long-lived. In spite of that negative evidence, however, we would advise a morning tub to all our readers, cold for those who can stand it, tepid for weaker and less resolute brethren, and warm for the aged. But even this general indication must be carefully modified to suit particular cases. The wise citizen will consult his medical adviser upon this weighty matter of daily routine.—*Medical Press and Circular.*

### Be Good to Yourself.

"Think deliberately of the house you live in—your body. Make up your mind firmly not to abuse it. Eat nothing that will hurt it. Wear nothing that distorts or pains it. Do not overload it with vic-

tuals or drink or work. Give yourself regular and abundant sleep. Keep your body warmly clad. Do not take cold; guard yourself against it. If you feel the first symptoms, give yourself heroic treatment. Get into a fine glow of heat by exercise. This is the only body you will have in this world. Study deeply and diligently the structure of it, the laws that govern it, the pains and penalty that will surely follow a violation of every law of life and health."

In the April number of *Science Progress* Professor E. B. Poulton calls attention to what he calls a "remarkable anticipation of modern views on evolution." The second volume of Dr. J. C. Prichard's "Researches into the Physical History of Mankind," second edition, 1826, contains passages which show that Prichard apprehended with perfect clearness that domesticated races of animals and plants have been produced by the selection of man and not by favorable surroundings, careful training, or cultivation. He believed in the possibility of organic evolution, and supported it by excellent arguments, which still have the strongest weight today. He even recognized the operation of natural selection, although he assigned to it a subordinate role. The most important anticipation, however, in Professor Poulton's opinion is the masterly discussion on the transmission of acquired characters, in which the distinction between acquired and inherent or congenital characters is clearly drawn, and many of the most difficult cases are argued fully out, the conclusions reached being those independently arrived at by Professor Weissmann half a century later. The fact that all this should have passed unnoticed can only be explained, Mr. Poulton believes, by supposing that this particular edition of Prichard's work was never consulted, but that Darwin and others always went to later editions of the same work. Prichard appears to have been not very confident in the strength of his own conclusions, and an examination of later editions and works leads Professor Poulton to believe that his convictions weakened still further.

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PHILADELPHIA, SATURDAY, JULY 17, 1897.

## EDITORIAL.

### NEEDING EXPLANATION.

The recent convention at Pittsburg of the Medical Society of Pennsylvania adopted the following among other resolutions:

That, "in consideration of the depressed financial condition of affairs in the State at the present time, and in view of the fact that there are about sixteen hundred insane persons in the Commonwealth not properly provided for, for whom it would require four years to build a suitable hospital, the society does not deem it advisable at present to press the erection of such buildings for any special class of the insane."

While this resolution was ostensibly put forward, and declared by its advocates to be for the purpose of repealing one adopted last year asking for special hospitals for the care of the chronic insane, from its phraseology it is open to a very different interpretation.

The declaration by the society is that there are sixteen hundred insane persons in the Commonwealth unprovided for, yet

the society does not deem it advisable at present to erect buildings for any "special class of the insane." This resolution expressive of the sense of the State Society is the more likely to be misinterpreted, or interpreted adversely to its declared intent, for the reason that there is now in progress a judicial and legislative investigation of the treatment of the criminal insane in our Eastern Penitentiary which is exciting a more than usual professional and public interest. It is not purposed to go into the facts as established by recent investigation, but to simply refer to that which is a forced conclusion from the facts; that there should be a separate hospital for that class of the insane convicted of crime or grave misdemeanors, where they can be well and securely housed, scientifically and humanely treated, and not subjected to that brutal and brutalizing system of treatment practiced in too many of our penal institutions.

If an institution of the kind is to be established—and there is little or no

ground for questioning the wisdom, even the necessity for such an institution—it will be brought about largely by the influence of physicians. They must influence and enlighten our legislators and the public as to the State's relations to those afflicted with dangerous forms of insanity and as to the best means of providing for them.

Both as physicians and citizens the medical profession should have an especial interest in this matter and press upon our law-makers to recognize that insanity is a disease, to be specially treated in special institutions provided for that purpose and by men qualified for that work by special study and clinical research.

As human beings, as fellow-beings, these unfortunates, irresponsible for their criminal and vicious tendencies, should have provided for them everything medical science has discovered as essential for their humane and successful treatment and the betterment of their condition. As a matter of public safety, they should be carefully housed, and as a matter of humane and sound State policy they should have the most beneficent care the State can bestow.

The State's care for them should be something more than merely custodial. The law may take a man's life for the safety and good of society, but it is lined all through with golden charities. It steps in where his reason is dethroned and declares him irresponsible for crime; founded in reason, its intent is to do more, to do everything medical science has declared essential to the restoration of healthy mental conditions, where such restoration is possible, thereby relieving the State of the victim's dependency upon public bounty and restoring him to possible usefulness as a citizen.

The testimony of eminent physicians before the legislative committee in the Eastern Penitentiary investigation makes

very plain the urgent necessity for such an institution as advocated. It is the testimony of men thoroughly familiar with the facts, who speak with the authority of those whose motives are clean and whose knowledge from a scientific standpoint entitles them to be heard.

Dr. Thomas G. Morton has had a long experience in the treatment of the insane and has made mental diseases a study. His opportunities have been special as a member of the State Board of Charities and a visitor to both the Eastern and Western Penitentiaries. He condemns, in unequivocal language, the present system of confining insane criminals in our penitentiaries. Dr. Dercum, an expert on mental disorders, testifies "that a prison is no place for the care of the insane. They should be taken to the State Hospitals, even though they are crowded, until an institution can be provided." Dr. Burr says: "I think there should be a separate hospital for insane criminals. There is no other satisfactory solution to the existing problem."

The consensus of professional opinion, the opinion of the best authority of the profession, favors a special institution where the criminal insane can be given special treatment. All politics, partisan and personal considerations should be barred out, and the matter considered as one of humane and wise State policy.

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The belief that lightning will not strike a feather bed was shown to be mistaken by an incident of the electric storm of Saturday. A bolt struck a chimney on the house of Charles States, who lives on the Deerfield road. Part of it jumped to the house of Bernard Huss and tore off the conductor pipe. The other part went down the chimney, ripped the plaster and paper from a bedroom, and then struck a feather bed. The bed was torn and the feathers scattered about the room.—*Utica (N. Y.) Herald.*

**ABSTRACTS.****ABUSE OF THE CLINIC.\***

BROOKLYN, May 15, 1897.

To the Board of Directors of the Brooklyn Eye and Ear Hospital:

Gentlemen—At the meeting of the Board, held January 19, 1897, the following resolution was unanimously adopted:

"RESOLVED, That a committee of three be appointed by the President to consider the subject of the abuse of the hospital's privileges by those whom it was not intended to benefit."

Your committee would respectfully submit the following report:

From personal knowledge and from investigation they have to report that the privileges which the hospital affords are abused by those whom it was not intended to benefit, and this to a considerable degree, although from the nature of things they are unable to estimate the exact extent of the abuse.

The patrons of the Clinic are of six classes.

1. The poor of the city. The organization and maintenance of the Brooklyn Eye and Ear Hospital have been of incalculable benefit to the poor. If the testimony of the truly poor among the 187,970 who have been treated in the institution since its foundation could be recorded, it would be a glorious monument to those who laid its foundation, to those through whose liberality it has been sustained, and to those who have, some of them for thirty years, ministered to the applicants for relief.

In addition to the class of patients above referred to, your committee find that there are five others for whom the benefits of the institution were not designed. This is no new discovery, but it is believed that the evil is one which has assumed such proportions as to call for action by the Board. Ever since the organization of the hospital the superintendent and the medical staff have made strenuous efforts to exclude those not en-

titled to treatment, and have not infrequently been the recipients of abuse from unworthy applicants, but with the means and time at their disposal this has been a most difficult task. It seems to your committee that such applicants should be excluded at the very entrance, so far as is possible, and that it is the duty of the Board to devise the methods to accomplish this and give to the superintendent such assistance as will enable him to carry out these methods to a practical result. Your committee believe that the medical staff should be relieved from such detective duties as being foreign to the purposes for which they were appointed, and as being calculated to depreciate the estimation in which they should be held by the community as helpers of the helpless and relievers of human suffering. Your committee are aware that such duties have never been formally assigned to the surgeons, but some of them, your committee think, regard it as a part of their function to exclude the undeserving.

2. The second class of patrons of the hospital comprises those who are able and willing to pay for treatment, but who do not feel able to pay what they think they will be called upon to pay if they consult specialists at their private offices. This apprehension is, of course, unfounded. There is in the profession no class of specialists who adapt their fees to the circumstances of their patients with greater willingness or more frequently than specialists in the treatment of diseases of the eye and ear. This fact, however, is not generally known, and hence this class swells the number of patients who apply at the hospital.

3. The third class comprises those who are able and willing to pay for treatment, but who, knowing no specialist, come to the hospital, the reputation of whose medical staff is known the city over.

4. In the fourth class are found well-to-do individuals who employ regularly a family physician for all the ailments of

\* Report of Special Committee on Brooklyn Eye and Ear Hospital.

the body, excepting those which have been made the subject of special study by physicians known as specialists. The family physician, not considering himself sufficiently informed to treat these specialties, among them being diseases of the eye and ear, sends his patients, when suffering from these diseases, to the institution where such special treatment is given. A considerable number of such patients come to the Eye and Ear Hospital. In thus doing the medical profession are aiding in sustaining a condition of things about which just at the present time much is being said by general practitioners as to the pauperizing of the community by hospitals and dispensaries.

5. The fifth class includes those who, being taxpayers of the city, think that because the hospital receives financial aid from the city, therefore they are entitled to free treatment. The money which the hospital receives from the city is from two sources: first, from the so-called charter appropriation, which is \$1,500 annually. In order to obtain this the hospital enters into a contract with the city "to render medical and surgical aid and treatment to the poor of the city of Brooklyn who may apply to it therefor during the year." Certainly under this contract the taxpayer has no rights. In addition to this appropriation the hospital receives a portion of the excise fund. In 1896 this amounted to \$985. This payment is made not from money raised by taxation, but from license fees. Certainly the taxpayer can claim no rights under this.

6. A sixth class of applicants at the hospital comprises candidates for positions in the civil service of the city who are desirous of knowing whether their sight and

hearing are so defective as to make their passing a civil-service examination improbable.

Your committee believe that every available means should be adopted to exclude from the privileges of the hospital all but the poor of the city. This will enable the medical staff to give more time and attention to the worthy, and will contribute toward the diminution of what is recognized as a growing evil which is tending to pauperize the community, one-fourth of whom in all our large cities are receiving gratuitous medical treatment. Toward a beginning of this reform your committee would recommend:

1. That a conspicuous sign be placed over the main entrance announcing that the hospital is for the benefit of the poor only.
2. That a circular letter be sent to every physician in the city asking his co-operation in excluding from the privileges of the hospital all those who are able to pay for advice and treatment.
3. That the result of the inquiry into this subject and the means to be adopted to minimize the evil be published in the lay and medical press, both of which have frequently called the attention of their readers to the abuse of dispensaries.
4. That a permanent committee of the Board be appointed whose duty it shall be to give attention to this subject, and to modify or amplify the measures adopted by the Board, as may be required from time to time.

Respectfully submitted,

JOSEPH H. RAYMOND, M. D.  
FREDERICK H. COLTON, M. D.  
ARTHUR MATHEWSON, M. D.  
*Committee.*

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Physicians are said to average only \$1,500 per year in New York, and the reason may be found in these statistics: There are 114 dispensaries and 26 hospitals in New York County. In the 26 hospitals, in the year 1895, 75,368 patients were treated free, and in the dispensaries 661,803, making a total of 737,171. This is a goodly proportion out of a 1,851,000 population—nearly 40 per cent. There have been 92,529 free visits of patients to

hospitals, and 1,387,170 free visits of patients to dispensaries. In attendance upon the 114 dispensaries in 1895 were 949 medical men, which is 27 per cent. of all the physicians in the city, who number 3,430. Here we have more than 1,500,000 free visits and more than 1,000,000 free prescriptions, and more than one-quarter of all the physicians in the city of New York engaged in treating the population free of charge.—*The Engineer.*

## THE THERAPEUTIC VALUE AND ADMINISTRATION OF IRON.\*

While the profession fully values iron, there is no doubt that failure to obtain the results which iron is capable of rendering is often due to the fact that a preparation is employed which is not readily assimilable. When taken into the mouth the soluble preparations of iron exert an astringent effect. Iron, as is well known, is one of the proximate principles of the economy and is an essential part of the food. A great many of the ordinary preparations produce constipation.

Iron exerts a marked influence on the nerve centers, but the good results obtained are due to the improvement it makes in nutrition. In anemia it increases the number of blood corpuscles, and is therefore considered a specific for that affection. The hemoglobin of the blood is brought up to the healthy standard under its use. By the improvement in the quality of the blood, the heart's action becomes better, and anemic patients who before its administration suffered with palpitation and frequent attacks of syncope soon lose these symptoms, after getting under its influence. The stomach is usually stimulated and the appetite is improved, when a pure, non-irritating preparation is exhibited. Binz says: "The contact of the latter (iron) with the mucous membrane causes a certain amount of constipation. If a solution of iron be injected into the blood of an animal, the metal soon appears in abundance as albuminate on such secreting surfaces as generally pour out albuminate secretion. The reason of this is the blood corpuscles in every part of the body assimilate the albuminate of iron, if its particles be sufficiently minute."

The field in which iron is employed with the greatest confidence is where we have anemia—and it is a specific for this affection when it is given in a form acceptable and easily assimilable. In chlorosis it is also given with excellent results. Fothergill lays down this rule as one indication for the exhibition of iron: "When the tongue is dry and red, iron always disagrees and should not be ordered. On

the other hand, a pale, broad and flabby tongue is especially indicative of the demand of the system for iron." (Shoemaker.)

In amenorrhea iron is given with decided benefit and when this trouble is due to anemia, the action of the remedy is pronouncedly favorable. To get the best results it must not only be given in appropriate form but regularly. This point is especially mentioned because in many cases where the action of the iron is not seen after the drug has been taken for a time it is due to the fact that the preparation has not been faithfully taken by the patient. In chlorotic girls this is often the case, and the practitioner must endeavor to get the parents of the patient to aid him.

In the treatment of enlarged spleen due primarily to the action of malaria, iron is generally most beneficial—probably because it overcomes the anemia usually associated. In the treatment of neuralgia iron may be effectively employed in a great many cases, since that affection very often results from anemia. In persons subject to attacks of articular and muscular rheumatism, we often find great improvement after a course of iron. In syphilis it is frequently given with much benefit, especially when anemia is a marked feature. It may be said in a general way that iron is indicated in pure anemia, and in all other affections in which that condition is a factor.

To administer iron properly is of a degree of importance which we cannot overestimate. The giving of the old tincture of the chlorid is open to many objections. That preparation is very disagreeable to the palate, and often produces gastric disturbance, constipation and other diseases. The albuminate of iron is considered by the ablest men in the profession as the most available preparation, as it is readily absorbed, and we can depend upon it to produce the best results. Liq. Ferri Albuminati (Drees) is a common form of prescribing it. This remedy is prepared with extreme care, and it does not prove disappointing, as is too often the case with other remedies of this class.

\* ROBERT C. KENNER, M.D., Louisville, Ky.

## SOCIETY REPORTS.

### DELAWARE STATE MEDICAL SOCIETY.

Annual Session, June 8th and 9th at Rehoboth, Del.; President Dr. William P. Orr, of Lewes, in the chair.

The Secretary reported that a committee had been appointed at the last meeting of the Society to frame a new constitution and by-laws. On motion it was decided to defer the report of the committee until later and proceed with the regular order of business.

The following were added to the Board of Censors: New Castle, I. S. Vandaligham, Frank Belville; Kent, James Wilson, P. T. Carlisle; Sussex, Joshua Ellegood.

DR. JOSHUA ELLEGGOOD submitted the name of S. J. Mesropian as a candidate for membership in the Society. He stated that Dr. Mesropian had registered previously to the law of 1896, had submitted his diploma to the Board of Examiners and agreed to comply with all the requirements and laws of the Society.

While waiting for the report of the Board of Censors the President suggested that the Society would be pleased to hear from any member present who had been present as delegate or visitor at the session of the American Medical Association in Philadelphia.

DR. HIRAM BURTON reported that he had attended the sessions as delegate from Delaware; that though heretofore he had not attended the section meetings, this year he had been present at all of them; that the papers read had all been excellent and most practical; that among the many one in particular which had engaged his attention was a paper read by a Philadelphia physician (Dr. Henry Beates) which advocated the use of Merck's pure digitalin in much larger doses than had generally been considered safe in the past. In certain conditions of heart affection where the disease is in an advanced stage, accompanied with the distressing dyspnea, pain in the back, etc., the doctor claimed great results. He recommended giving the drug in doses of one-third to one-half grains, three or four times a day in these advanced cases. Heretofore physicians had considered that one-fiftieth grains was within the limit of safety, but to largely increase that dose would be dangerous. The doctor exhibited a patient, boy, who had been suffering with symptoms of advanced heart trouble and who under the above treatment had been relieved and was comparatively well. Crude forms of the preparations of digitalis frequently produce disordered digestion and accumulative action. Digitalin is said to be free from this. If these claims were true it will be well for every country physician to know it.

In the section devoted to surgery I met many prominent men, among whom I might mention Sayre, of New York, one of the greatest surgeons in the country, and Marcy of Boston. Dr. Marcy, at one of the dinners given to the section on surgery, related a very interesting and pertinent bit of history concerning the introduction of modern antiseptic methods. He said that in the year—he had taken a trip to Europe for the further study of scientific surgery. While there his attention was one day directed to a distinguished looking man, and was informed that he was the son-in-law of one of the most prominent men in England, but that he himself was a "crank." This man was Lord Lister, and at that time he was developing and endeavoring to carry out his theories of antisepsis in surgery.

Dr. Marcy secured an introduction to Dr. Lister, and learning his theory, became convinced of the truth of it and made a thorough study of the subject.

He returned to Boston filled with the subject, made application for the trial of the method, but was met on every side by opposition and was informed that there were no beds at his disposal in the hospital. The trustees, indeed, met to consider the proposition, but after talking it over concluded there was nothing in the theory. He accordingly proceeded to establish a hospital on his own hook at the cost of thousands of dollars, established the success of the theory, and attested its truth in the success of his treatment.

Shortly after Dr. Marcy's return from England he went to New York, called upon Dr. Sayre and talked over the matter with him. He seemed very enthusiastic, and remarked that in his opinion the profession should have to learn everything in surgery over again.

To those two men, Dr. Sayre of New York, and Marcy of Boston, we are indebted for the introduction of antiseptic surgery into this country.

DR. MARSHALL.—I was present one day but had to leave on the following. There was more opportunity offered for entertainment at this session than ever before. I was pleased to hear the few kindly words of welcome from our President of the United States, and also from Governor Hastings of Pennsylvania.

DR. ELLEGGOOD.—I think it is a great mistake for any man in regular practice not to avail himself of every opportunity to attend gatherings of this kind. I visited the different sections and had opportunity to meet men from all parts of the country. Papers were read on almost every subject

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in medicine, the substance of which was boiled down, giving the practical essence.

**DR. TOMLINSON.**—Dr. Hearn has led us to believe that not much was to be learned from the evening gatherings. Dr. Burton, however, has proved to the contrary. No doubt Dr. Hearn could do the same if he would.

In regard to the different sections of the American Medical Association, I was particularly interested in the very valuable papers contributed to the subject of typhoid fever, as well as the discussions thereon. Dr. McCormick, a member of the Pennsylvania State Examining Board, read a paper in which the treatment recommended by him and the results claimed therefrom, if proved, would apparently revolutionize the treatment of this disease. The doctor claimed great success with his treatment, and gave statistics covering over 100 cases during the past four years, which led me to infer that the disease must have been more prevalent in that locality during the period named than in Wilmington. The first twenty-four cases were reported with three deaths; in the next hundred one patient was lost. In a large number of cases hemorrhage was present. The doctor recom-

mended the free use of calomel and salines all through the cases, washing out of the bowels with ice water, if the temperature is high, and used some of the coal tar products, the carbonate of guaiacol being apparently the favorite.

I could not agree with him in every respect. Dr. Osler remarked that the doctor was rather young, if not in years at least in experience and methods. In the discussion that ensued on the paper above mentioned, by a number who were present it would appear that few agreed with the theories recommended. Dr. Osler's remarks were followed by applause. Dr. Osler, continuing further, said, in reference to the remarks about not following teachers and professors, every individual has opportunity to follow common sense, and any man of average sense would not undertake to treat diseases of the bowels without the use of opium. While some are in favor of calomel sufficient for gentle action, most are much better pleased not to have more than one or two movements a day. It did not seem to make much difference to Dr. McCormick as to whether the patient should have ten or twelve movements per day.

(To be continued.)

## PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated meeting, June 23, 1897.

The President, DR. JAMES TYSON, in the chair.

DR. A. G. THOMSON read a paper upon Complete Blindness Due to Acute Poisoning from Over Use of Jamaica Ginger; Recovery followed by Toxic Amblyopia of Ordinary Chronic Form, with External Atrophy.

(See next issue.)

## DISCUSSION.

DR. G. E. DE SCHWEINTZ said that, so far as he knows, from an extensive acquaintance with the literature of the subject, the case reported is the first of toxic amblyopia following the abuse of Jamaica ginger, and the paper for the first time calls attention to the ocular lesions that may follow the excessive use of this drug. It is not surprising, however, to hear that optic-nerve atrophy may follow excessive indulgence in Jamaica ginger, although that it should come on acutely, as has been described, is worthy of special remark. Dr. de Schweinitz has been told by a college-mate who lives on the northern border of Pennsylvania that persons in the vicinity who cannot obtain whisky are in the habit of indulging excessively in the use of Jamaica ginger, and as a result there arises a species of drunkenness far more uncontrollable and disastrous in its effects that that which follows the free imbibing of alcoholic spirit.

Therefore it is not surprising that the optic nerve should suffer in the way that has been described.

Dr. de Schweinitz referred to a case already reported, in which the visual fields closely resembled those described by Dr. Thomson, in which the disorder was due to the toxic effects of alcohol and tobacco combined, or else was a type of progressive scotomatous optic-nerve atrophy that may have resulted from inherited tendencies. Therefore it is not surprising that the patient ultimately became entirely blind. An examination of the charts shows how closely they resemble those of Dr. Thomson's case, save only that the process has progressed much further and the atrophy has become more extensive. In fact, this patient ultimately became entirely blind. The scotoma, beginning in the center and representing disease of the papillo-macular bundle, gradually increased until it broke through and met a peripheral contraction of the visual field. Finally, the peripheral and intermediate bundles of the optic nerve became affected, and vision was gradually destroyed.

Although it is not known exactly what principle it is in alcohol, or, indeed, in any of the toxic agents, that causes these forms of amblyopia, it seems likely, in spite of some assertions to the contrary, that the poorer the quality of the alcohol, the more likely the development of toxic effects. Recently Dr. de Schweinitz made an au-

topsy in the case of a man—the nineteenth—dead of pneumonia, who for some years before his death was a typical example of so-called toxic amblyopia, presenting the usual central negative scotoma. The specimens have already been demonstrated before the American Ophthalmological Society, but the charts show beautifully the circumscribed atrophy of the papillo-macular bundle throughout its entire course, the atrophy being ophthalmoscopically manifest as a quadrant-shaped patch of discoloration in the lower and outer portion of the optic disc and, microscopically, as a degenerated bundle occupying first the lower and outer portion of the nerve, gradually reaching its axis, then sinking to the lower portion of the nerve, passing through the chiasm and finally losing itself in the optic tract. There is some doubt as to the exact pathology of cases like this, that is to say, whether the atrophy is primary or is preceded by neuritis. Dr. de Schweinitz holds that there is an interstitial neuritis, with thickening and changes in the inter-fascicular septa, which then press upon the nerve-fibers and destroy them. The process has been compared with the sclerosing inflammation found in chronic hepatitis of alcoholic origin. Recently a theory has been revived by Nuel that the primary effect of these poisons falls upon the ganglion-cells of the macular region, atrophy of which is followed by an ascending degeneration of the optic nerve. While both clinical and experimental evidence goes to prove that atrophy of the ganglion-cells of the macula does cause degeneration in the papillo-macular tract, a case like Dr. de Schweinitz', in which the ganglion-cells were normal, indicates that they are not always the starting point of the disease, but that alcohol, tobacco, or whatever other drug may be regarded as the toxic agent, or else the toxin that it liberates in the system, may sometimes, and probably usually, affect primarily the fibers of the optic nerve. Recent investigations, particularly in Chicago by Casey Wood, Klebs and Turck, indicate that certain toxins may be liberated in the stomach that in turn have the power of causing blindness. It is a curious fact that tobacco amblyopia almost never occurs unless there exists marked gastric disturbance, or, at all events, other disturbances than those merely connected with sight. Its victims frequently suffer from insomnia and chronic indigestion. This is noteworthy because Dr. Thomson's case, which really was a form of poisoning with a mixture of bad alcohol, poor ginger and cayenne pepper, may perfectly well be explained, if this theory is accepted, by the hypothesis that some active toxin was liberated which was the mischievous agent. Dr. Thomson's communication is a most important and interesting one, and adds not a little to existing clinical knowledge of the interesting subject of the toxic amblyopias.

DR. EDWARD JACKSON said that he had had an opportunity of seeing Dr. Thomson's very interesting and instructive case, which is perhaps not so far removed, however, from the more common cases of toxic amblyopia as it might at first seem. Certainly some of such cases are quite sudden in the onset. Dr. Jackson has never had one that he could watch within the first week of the appearance of symptoms, but he has seen several in which there was a very definite history of quite a sudden impairment of vision, sufficient to interfere very much with ordinary occupations, and which coming under observation within two or three weeks showed the typical symptom-group of toxic amblyopia; so that while the history of this case is one of very much greater suddenness and severity than that of the ordinary case, it is a difference not radical but rather in degree.

Dr. Jackson further called attention to the fact that in some cases, particularly in a series published in the last number of the *Royal London Ophthalmic Hospital Reports* by Dr. A. H. Thompson, recovery is sometimes much delayed, although from the appearance of the optic discs there is not likely to be much improvement in this case.

In the series of cases referred to, one was under treatment for a whole year without material improvement; yet at the end of the second year full vision had been recovered.

Dr. de Schweinitz has stated the current diverse views of the pathology of this condition. Dr. Jackson's own feeling is that if these narcotics act directly, although that is an important if, with the supposition of autoinfection that has recently been introduced, the most plausible theory is that which regards the nerve-elements as suffering first, and in some cases it would seem that the nerve-elements at the macula suffer before the macular bundle, that is that the involvement of the nerve is secondary.

DR. WILLIAM THOMSON said that he had seen this case and had only to corroborate all that was said about it. It is of particular interest because it has been kept under observation for a longer time than is usually permitted.

DR. A. A. ESHNER asked if the patient had presented symptoms of multiple neuritis or of involvement of any other than the optic nerves. Increasing evidence tends to show that optic neuritis in its various forms, as well as inflammation of other nerves, may result in the course of any of the infectious diseases. This relation has been established in the case of malaria, of typhoid fever, of influenza and some other diseases, and it probably exists in the case of still others in which the proof is not yet at hand. It is probable that in these cases the inflammatory process, whether interstitial or parenchymatous, is actually toxic in nature. There is no reason to assume that there occurs lodgment of the causative mi-

cro-organisms in the diverse situations of the various complications, neural and otherwise. The neuritides that follow are due to the toxic influence of the products of barterial activity, and are comparable to those dependent upon intoxication with alcohol, tobacco, lead, iodoform and other agents acting similarly.

In following the morbid process it seems scarcely necessary to interpose the action of toxins generated in the gastro-intestinal tract, with resultant auto-intoxication. It seems much easier simply to assume that under the conditions named the function of the liver is at fault, so that poisons taken in by the stomach are not restrained in their onward course or physiologically modified through the normal functional activity of the liver. As a result such poisons pass almost directly into the circulation and give rise to more or less characteristic disturbances. Just why, however, in some instances the optic nerves alone should suffer and in other instances other nerves is not yet known; and the explanation may not be looked for until more is known of physiologic chemistry, until it is known also why certain substances used medicinally act upon one portion of the nervous system and other substances act upon other portions. The matter is one of selective affinity, and the solution of the problems attending it must await increased knowledge concerning functional, nutritive and metabolic activities of the cellular elements of the body.

DR. A. G. THOMSON said that he had not made any very careful examination of the patient as to sensation, but the man related that on recovering from his debauch his general condition was very much worse than from the ordinary effect of alcohol. Examination of the visual field showed an increase of the scotoma outwards. Below, in that portion of the field where the scotoma was breaking through towards the periphery, vision was not as clear as elsewhere, so that, if the color-fields were large enough a scotoma for color would have been found, showing that these fibers, though not completely atrophied, were undergoing certain changes and would not receive certain vibrations as the upper portion of the field.

DR. A. A. ESHNER read a paper upon

#### Hysteria in Early Life. (See p. 69.)

#### DISCUSSION.

DR. F. SAVARY PEARCE submitted that the decision in reference to hysteria alone existing should be withheld in several of the cases, in view of the fact that longer observation might reveal true epilepsy complicated by the hysteria. Some of the cases reported as hysteria may prove to be epileptic as well. The first case Dr. Pearce had seen and he considered it one of hystero-epilepsy from the fact that the child was unconscious in the attacks.

DR. CHARLES W. BURR said that hysteria is very infrequent in children and seldom conforms to the clinical type. Rarely is the entire picture seen—anesthesia, palsy, convulsion, and reversal of the visual fields. In Philadelphia children at any rate hysteria usually means a convulsive attack, an aberrant fit confined, or almost confined, to the epileptoid stage. Dr. Burr has never seen reversal of the visual fields in children and but a few times in adults and almost as often in non-hysterics as in hysterics. The most frequent manifestation of hysteria in children after convulsions is palsy or contraction of one or more extremities and that most interesting caricature of organic disease—pseudo-Pott's disease.

As to the diagnosis of the hysterie from the epileptic fit it will be agreed that sometimes it is extremely difficult to make. To diagnosticate hysteria in haste is dangerous. Certainly consciousness may be lost in hysteria, absolutely lost, and in rare cases a true epileptic fit may occur without alteration of consciousness. Again, hysteria does not vaccinate against epilepsy and both may and do occur in the same patient.

The most frequent error made in diagnosis is in confounding hysteria with pure emotionalism or downright fraud. Hysteria is too much used as an intellectual pigeon-hole for all dramatic and remarkable manifestations of disease, the clinician being satisfied when he has given an illness a name and forgetting that hysteria has as definite a natural history as nervous syphilis or pulmonary tuberculosis. Many children will do very remarkable things and relate strange tales of suffering in order to get what they want, to be made much of, to be petted and spoilt; but this is not hysteria. It is the disease of mendacity. Again, in genuine hysteria it is sometimes difficult to separate the real from the pretended in the symptomatology. Hysteric children are often precocious, extremely susceptible to suggestion and very helpful in aiding the physician to find the symptom he is searching for. Dr. Burr has more than once examined a child for anesthesia and failed to find it until the patient discovered what was wanted.

The most difficult diagnosis probably is between organic brain-disease and hysteria. No organic disease is more likely to be accompanied by hysteria than tumor of the brain. For example, Dr. Burr is now treating a child (reported with others at the recent meeting of the American Medical Association) who may have hysteria alone or in combination with cerebellar tumor. The oculists, who usually are of great aid in such cases, in this instance have failed entirely to render assistance. They say she may have beginning papillitis or she may not. Time only will clear up the diagnosis.

DR. G. E. DE SCHWEINITZ said that he has seen several very extraordinary cases of hysteria in children—one case of pseudo-

catalepsy which has been recorded by Dr. Mills in Pepper's *System of Medicine*, which occurred in a child about two and one-half years of age and followed an attack of diphtheria and diphtheric conjunctivitis. Another case, one of perfect hysterical amblyopia, with hemianesthesia, occurred in a colored child about nine years of age, whose case was studied in the Eye Dispensary of the University Hospital many years ago. This case has already been reported to the Philadelphia Neurological Society.

In regard to the reversal of the color-fields as a symptom of hysteria it may be said that in the first place it is very difficult to satisfy one's self of the accuracy of observations with the perimeter in the examination of hysterical and nervous patients. While it is perfectly true that either by suggestion or because of retinal tire, or from other reasons not pertinent or present, but connected with what is known as adaptation of the retina, reversal of the color-lines is not infrequent, the clinician should be very slow to accept this symptom as pathognomonic of hysteria. Taken in conjunction with other symptoms, however, it is an important factor and worthy of study. In connection with optic neuritis of organic brain-disease, it is to be remembered that sometimes it is very difficult in the early stages to say whether or not a flush of the optic nerve, which is so commonly present, is the first stage of optic neuritis or whether it is non-significant of intracranial disease. In Dr. de Schweinitz' opinion statistical information would be better if the ophthalmic diagnosis in so many cases was not obscured by unnecessary technicalities. It would be better to say, for example, that the disc is flushed or congested, but that there is no actual neuritis than to burden reports with ill-defined phraseology. That organic brain-disease may mimic hysteria is as well known as is the reverse of this statement. Dr. de Schweinitz referred to a case examined at the request of Dr. H. C. Wood, and who had all the symptoms of hysteria, and indeed Dr. Wood was inclined to consider the patient hysterical, but stated that he reserved his diagnosis until an ophthalmoscopic examination had been made. This revealed extensive optic neuritis. The patient subsequently died, and at the autopsy well-marked basilar meningitis was found; yet all the symptoms simulated hysteria. Therefore, in all of these cases ophthalmoscopic and perimetric examinations are of the utmost importance. If they are positive, their aid in diagnosis is most valuable.

DR. D. B. BIRNEY referred to the case of a baby ten months old, with a history that the mother, about three weeks after the child was born, had gone through quite a siege in nursing two other children with diphtheria, both of whom died. The mother was nursing this little babe at the time and soon afterward she noticed that the baby

apparently lost consciousness from time to time and would roll its eyes. The attacks would last only a moment and pass off. They continued thus for several months. The child when seen in one of these attacks, while apparently feeling perfectly well, lying on its mother's lap, would have a little twitching of the eyelids; then the eyes would be rolled back and lifted and rolled from side to side with more or less twitching of the lips, slight stiffening of one arm and leg and perhaps in half a minute the child was apparently in a normal condition again. Bromids were given, with apparently no result. It being finally found that the mother was about three months pregnant, she was directed to wean the baby. At once the symptoms ceased and have been absent for six months.

DR. ESHNER expressed the hope that he had made it clear that the diagnosis in some of the cases reported had been made with a good deal of reservation. His endeavor in presenting the paper was, among other things, to dwell upon the difficulty at times experienced in diagnosis of hysteria, and in children especially. The frank, open case of hysteria in either childhood or adult life is exceedingly easy of diagnosis, but in the border-line cases, in which the symptoms are ill defined, the diagnosis is sometimes exceedingly difficult. Another point to be emphasized is the occurrence of hysteria in conjunction with other diseases, nervous or otherwise. The existence of hysteria by no means excludes the existence of other disease, and vice versa. One might rather look for hysteria when other disease already exists. The symptoms of the nervous disorder will naturally vary with the education and environment of the patient.

While unwilling to call the case referred to by Dr. Birney one of hysteria, Dr. Eshner would be likewise unwilling to call it one of epilepsy. One not rarely sees in children cases of sudden transient rigidity without other attendant phenomena. In these one may expect investigation to disclose some derangement of nutrition on the part of the child, giving rise to cerebral irritation, as manifested by these periodic, brief attacks. Such a suspicion receives support in Dr. Birney's case from the statement that the attacks ceased with the weaning of the little patient.

DR. HENRY BEATES, JR., read a paper upon Some of the Causes Defeating the Proper Progress of Therapeutics.

(See next issue.)

#### DISCUSSION.

DR. JAMES TYSON said that Dr. Beates had taken up most of the weak points in the progress of therapeutics and had told the exact truth of very much, and he thought that the members of the Society would sustain him in most if not all he had said.

## PERISCOPE.

## NEWS AND MISCELLANY.

The study of ringworm led R. Sabouraud (*Annals de Derm. et de Syph.*) to that of **alopecia areata**; the latter to seborrhea, and seborrhea to alopecia. He summarizes his conclusions:

1. The specific micro-bacillus of oily seborrhea introduced into the pilo sebaceous follicle causes there four constant results:

- (a) Sebaceous hypersecretion.
- (b) Hypertrophy of the sebaceous glands.
- (c) Progressive papillary atrophy.
- (d) The death of the hair.

a and d are functional phenomena, b and c, anatomical. These phenomena result from seborrhic infection as well on lanugo regions (the breast) as on other parts.

2. On the scalp, this infection has the vertex for its elective site, oily seborrhea giving rise to the baldness. Common alopecia is only oily seborrhea of the vertex in a chronic state.

Not only is the follicular seborrhic infection indispensable to the appearance of baldness, but that infection remains intense, pure and permanent until the alopecia is fully definitely constituted; until the ultimate sclerosis of the follicles occurs.

3. Common alopecia is then a microbial, specific, perfectly characterized disease.

Quite the most remarkable statement in the paper relates to the action of the seborrhic toxin on the hair papilla. The cocoon (described in the preceding abstract) remains circumscribed in the upper third of the hair follicle; consequently, the bacilli themselves do not reach the papilla. Its death must then be produced by toxins generated in the neighborhood of the cocoon. Cultures of the microbe on artificial media furnished a toxin which, when injected into sheep, rabbits, and guinea-pigs, produced loss of hair without any other symptom. These inoculations, done under all conditions, seem to preclude every chance of error in the results obtained. Sabouraud also points out the errors of observation as to these facts, which have led Unna and his pupils astray. They are three:

1. Examination of seborrhea by surface-scraping instead of section through the integument.

2. The misconception that the pathology and physiology of the follicle is the same as that of the epidermis, than which nothing is more false.

3. The presence of pityriasis accompanying alopecia. When the two occur coincidentally, the baldness is due to a subjacent seborrhic infection. The two may be mixed in any proportion.—*Journal of Cutaneous and Genito-Urinary Diseases.*

An interesting experiment has been carried out by an English dairy company in connection with the importation of milk into India. Three quarts of sterilized milk, in patent stoppered bottles, packed in a wooden case, were placed on board ship in London and put in the baggage room in the hold. At Brindisi the case was removed to a cabin, where it lay until Aden was reached, when it was transhipped, after lying for a considerable time in the sun, to a cabin of another vessel. Two days later one bottle was opened and the milk was found to be perfectly fresh and sweet. On arrival in Bombay the case was placed in a carriage and so conveyed half across India to a station on the Plains, and finally, after further exposure to the sun, to a house, where a day later the second bottle was opened, and the contents found to be quite fresh. Six days afterwards the last bottle was opened, with the same result. In every case a certain amount of butter had formed from the jolting, but the milk was quite sweet and palatable. Thus, this test seems to show that sterilized milk can be imported into India from this country and distributed there without any special precautions. The Times of India, in discussing the matter, pertinently remarks that if this fully in a commercial sense and bottled milk procured as readily as bottled beer, but at a much lower price, it might be hoped that one of the first results to follow would be a diminution of infantile mortality among Europeans, and also of enteric and other zymotic diseases. Of course, however, it is now generally known that there are certain drawbacks to the use of sterilized milk in the feeding of children.—*Medical Press.*

The multiplicity of institutions teaching medicine has placed the study of medicine within the reach of practically all persons. A very natural aversion to seeking the aid of the law in maintaining a professional standard has operated to prevent those who hold the honor of the profession in highest esteem from asking for the enactment of express provisions governing the requirement for admission to medical colleges. It has been believed that this was a matter that would in short time bring its own corrective. But has it done so? Evidently not, if we may judge from the expressions of many members of the profession who have earned their right to speak, and who say in plain terms that it is time commercialism and other selfish and egotistic considerations in medical education received the stamp of professional disapproval.—*Medical Standard*

**William Thompson Lusk, M.D.**, who died recently in New York, was born in Norwich, Ct., May 23, 1838. From 1858 to 1861, he studied medicine in Heidelberg and in Berlin. He then returned to the United States and took his degree in medicine from the Bellevue Hospital Medical College, in 1864. Previous to that, however, he had served for three years in the Federal Army during the War of the Rebellion. After his graduation in medicine he again went to Europe for further study, which he prosecuted in Edinburgh, Paris, Vienna, and Prague. On his return he was appointed professor of physiology in the Long Island College Hospital, of which chair he was the incumbent from 1868 to 1871. For the year 1870-'71 he was also lecturer on physiology in the Harvard Medical School. In 1871 he was made professor of obstetrics, diseases of women, diseases of infants, and clinical midwifery in his alma mater, the Bellevue Hospital Medical College. He continued to hold that chair up to the time of his death, and it was in connection with the discharge of its duties that he won the rich professional honors and world-wide fame that fell to his lot. It is primarily as an obstetrician that Dr. Lusk has been known, especially from his excellent text-book *The Science and Art of Midwifery*, a work that has passed through a number of editions and been translated into several European languages. In his later years he had given more attention to operative gynaecology than to obstetrics, and in that field he was conspicuously successful.—*N. Y. Medical Journal*.

Has all that has accrued to tuberculosis during the last decade in the least lessened the number of cases or mitigated the course of the disease? Not at all. Consumption continues, and will ever obtain so long as "advanced views" prevail, both regarding the management of the malady and of the demands of civilization. On the contrary, consumption is constantly increasing the number of its victims, not because it is contagious—for it is not; not because it is infectious—for even this is doubtful except in rare and isolated instances; but because the habits of life inculcated by so-called advancing civilization tend to prepare more fertile soils for the germ.—*Medical Age*.

There is a tendency to write about matters of insurance without sufficient thought. There are many things which must be considered by insurance officers which cannot possibly be comprehended by those who have not had personal contact with the business, but which are very vital to a satisfactory working out of the problem. The fact is, insurance doctors are bound to use their best skill in this work, as in any other branch of the medical profession.—*Medical Examiner*.

**Ethically, legally and professionally**, the request to see a patient implies on the part of the one who makes it an obligation to pay for service rendered or attempted. In an emergency call with a reasonably ready response, the mere fact that the patient is dead before the arrival of the doctor does not in any way cancel the pecuniary liabilities of the situation. It matters not how many physicians are summoned, all should be paid. It is certainly not their fault when they are called too late.—*Medical Record*.

**Vaginal tumors are so rare, and so little** is said about them, that the following case may be of some interest, mentioned in *Medical Age*: A woman, aged thirty, mother of two children, and at about the fourth month of pregnancy, complained of great pain and irritation about the vulva, a constant bearing down and a troublesome leucorrhoeal discharge; the rectum and bladder were also involved in the distress. The vagina was almost completely filled by a number of tumors of various sizes, elongated, larger at base than apex, and tapering towards the extremity, springing from the anterior wall. The largest was about the diameter of the fourth finger and an inch in length; all inflamed, excoriated and very tender and sensitive to touch. Their structure was apparently fibrous. Relief being imperative on account of the severe pain and discomfort, they were removed with scissors, after firmly tying off at their bases with a ligature passed pretty deeply to avoid hemorrhage. Complete relief followed, and the woman was confined at the full time without difficulty of any kind. These growths were not cysts, nor possessed of a pedicle as is usual with polypi; neither were they warty; there was no reason to suspect specific disease. Non-recurrence evidences that there was no malignancy. Fibroids of vagina do not agree with the description given, but the structure, to the naked eye, was certainly fibrous. Pregnancy no doubt caused a rapid, but did it originate, growth?

**Dr. J. Lewis Smith**, the recently deceased distinguished writer on Children's diseases, was born in Stafford, N. Y., in 1827. He was graduated from Yale in 1849. He attended lectures in the Buffalo Medical School in 1851 and 1852, and took his medical degree from the College of Physicians and Surgeons, New York, in 1853. Since that time he had been a practitioner in New York, devoting special attention to paediatrics. He was clinical professor of diseases of children in Bellevue Hospital Medical College and the author of a *Treatise on Diseases of Children* that in its various editions has been regarded as an authority for many years.

**The Analysis of the Urine as a Test for Immunity.**—Poehl (*Wein. med. Woch.*, 1897, No. 4) points out that immunity varies not only with the nature of the infection, but with the condition of the infected, and hence that an investigation of the latter must be of great importance for both natural and acquired immunity. He holds that the existing power of the organism depends very largely upon the manner in which its internal or tissue respiration is carried on, and states that he has never examined a case of infectious disease in which this has been normal. According to the author, the most important predisposing cause of infection is auto-intoxication, and the most potent agency in the production of this is deficient internal respiration. Hence the whole problem may be elucidated by the study of the urine. The main causes of auto-intoxication are: 1. Diminished alkalinity of the blood due to acidity of the tissues from over-exertion or other causes. 2. Insufficient supply of oxygen. 3. Abnormal fermentation processes in the intestine. 4. Poisoning from without by bacterial or other agencies. 5. Retention of metabolic products. Many of these conditions can be detected by examination of the urine. Thus intestinal auto-intoxication is indicated when the proportion of organic to inorganic sulphates exceeds 1 to 10, and also when the amount of indican is markedly increased. Diminution in the alkalinity of the blood may be inferred when the proportion of phosphoric acid estimated as disodium hydrogen phosphate is less than 50 per cent. of the normal, or when the proportion of uric acid to phosphoric acid estimated in this way is more than 2 to 5. Furthermore, the proportion of urea nitrogen to total nitrogen is a test for oxydation processes in the tissues; when the proportion is less than 9 to 10 these are defective, and the same is the case when the amount of sodium chloride present is less than half that of the urea. The author considers that the pernicious action of deficient alkalinity of the blood arises from non-production of spermin from the leucocytes, which, according to him, plays the part of a ferment in determining the tissue respiration.—*Brit. Med. Jour.*

**Diabetes among Locomotive Engineers**—There is no doubt that diabetes must be regarded as one of the penalties of advanced civilization (*Med. Press and Circ.*). The statistics of the disease show that it is steadily and rapidly increasing in all the great cities of Europe. Among the most recent investigations as to the prevalence of this special malady it has been shown that locomotive engineers have displayed a marked mortality from diabetes. An American observer has stated that this mortality has reached as much as seven times that of the ordinary population. The causes of this are stated to be: 1, The jarring to which the engineers are exposed; 2, the mental strain under which they work; 3,

the changes of temperature which they endure. In this country the records of one large railway company show that the mortality of engineers from diabetes, so far as it is possible to compare them with the general population about the same age, is somewhat excessive. The subject is one which would be well worth a close and extensive inquiry. There is much yet concerning the pathology and etiology of diabetes which is obscure.

In a contribution to the treatment of **deaf mutism by operation on adenoid vegetations**, John Sendziak (*Journ. Laryngol. Rhinol. and Otol.*) says much attention has lately been directed to the relation between deaf mutism and adenoid vegetations. Various authors upon careful investigation come to the same conclusions: that in the deaf and dumb we much more frequently meet with adenoid vegetations than in healthy children—from 58 to 73 per cent; while in healthy children the percentage of those who suffer varies only from 5 to 13 per cent. It is probable that children who are born with adenoid vegetations, or who acquire them in the first years of their lives, are frequently deaf from this cause, and are not able to learn to speak, or forget what they did know. The cause of deafness is the mechanical obstruction of the eustachian tubes, or an inflammatory process in the middle ear.

The State Legislature of Illinois has enacted the following law respecting the sale of cocaine:

Section 1. Be it enacted by the People of the State of Illinois, represented in the General Assembly, It shall not be lawful for any druggist or other person to retail or sell or give away any cocaine hydrochlorate or other salt of or any compound of cocaine or preparation containing cocaine, or any salts of or any compound thereof, excepting upon the written prescription of a licensed physician or licensed dentist, licensed under the laws of the State, which prescription shall only be filled once; Provided, That the provisions of this section shall not apply to sales in the usual quantities at wholesale by any manufacturer or wholesale dealer, when such manufacturer or wholesale dealer shall have affixed to the box, bottle or package containing such cocaine hydrochlorate or other salt or compound of cocaine or preparation containing cocaine a label specifically setting forth the proportion of cocaine contained in any preparation.

Seet. 2. Every person who shall be found guilty of violation of the provisions of this act shall, for the first offense, be fined a sum not less than ten dollars, nor more than fifty dollars, and for each subsequent offense not less than fifteen dollars, nor more than two hundred dollars, or imprisonment in the county jail not exceeding thirty days, or either or both, in the discretion of the court.—*Med. Standard.*

In a recent number of the *Monist* Dr. Cappie has put forward some views of **intracranial physics of the cerebral circulation** which are somewhat startling to the modern physiologist. No physiologist trained in the strict school of experimental inquiry would now venture to maintain "that the physical changes between the fluids within and outside the capillary walls, the chemical affinities, the attractions and repulsions, the inconceivably rapid oscillation of the molecules—all go to constitute a force which draws the blood onwards and actively transmits it through the capillaries." Dr. Cappie points to the portal circulation, and insists that some other force than the heart is required to maintain this in efficiency. Such a force is to be found in the action of the respiratory pump. By the descent of the diaphragm blood is not only aspirated into the thorax, but is expressed from the abdomen. If the abdominal expiratory muscles be brought into play the expression of blood will then take place to a great extent. By squeezing the liver with the hand a large volume of blood can be driven with ease into the right heart. Neglecting the essential fact that fluid transmits pressure equally in all directions, Dr. Cappie believes that the exit of the venous blood from the cranium is opposed by the atmospheric pressure. He therefore supposes that the blood must "move through the (cerebral) vessels not passively, but with an actively distending force, resulting from the direct influence of molecular changes. These powerfully attract the blood and urge it onwards through the vessels." "Physical restraint," he says, "is essential in order to control the direction of motion and to condition the amount of force," and therefore the brain is enclosed by the cranial wall. As "super-heated steam, surging in vain against the walls of the boiler, spends its force on the piston and puts powerful levers in motion," so acts the nervous energy of the brain stored in the skull cavity. "Straining tension on the one hand and steady support on the other are essential." Thus he concludes, "However strenuously the will may attempt to operate, it will fail in the presence of a flaccid brain. We may as well expect the piston of an engine to be efficiently raised when there is a rent in the boiler." It has been thoroughly established by experiment that there is nothing very essentially different in the circulation of the brain from the circulation in any other organ. Owing to the cranial wall the brain is unable to expand or collapse with changes of circulatory pressure. Intracranial tension is the same as cerebral venous tension, and varies proportionately with general arterial tension, and directly as general venous tension. The cerebral vessels are governed by the vasmotor nerves; the cerebral circulation depends upon the force of the heart and the vasmotor tone of the splanchnic area. The splanchnic vessels form the resistance base of the circulatory system. When these vessels constrict, the

velocity of blood flow through the brain and the intracranial tension are increased. When they dilate, the opposite results occur. A flaccid brain is an anemic brain, and is sequential to a toneless condition of the circulatory system.—*British Med. Jour.*

**A Case of Avulsion of the Uterus** is reported by E. Hickson Smith, M. R. C. S. Eng., L. R. C. P. Lond. On his arrival at the house the midwife said that the child had been born two hours previously on the floor, while the mother was on her hands and knees. After separating the child and getting the patient into bed she found a large lump protruding from the vagina, which she thought was the head of another child, and consequently pulled on it for three-quarters of an hour, until she had dragged it away. He immediately examined this, and found it to be the inverted uterus. This was turned back again, and found to be the whole of the uterus and cervix, with its peritoneal covering, and one broad ligament and Fallopian tube, without the ovary. The broad ligament of the other side was congenitally absent. On inserting his finger into the vagina, it moved freely about among the intestines, and the absence of the uterus and cervix was distinctly apparent. The hemorrhage was but slight, and gave no trouble. The natural result of such a catastrophe would be prolapse of the bowels and general peritonitis. Therefore the patient was kept on her back, an antiseptic plug, and in order to quiet the peritoneum morphia was administered, and a strictly milk diet. Contrary to what might have been expected, no serious symptoms occurred. The peritoneum closed up and the top of the vagina cicatrized over. In about three weeks the patient was able to get up and go about. On visiting her three months later she was in her usual health and the vagina was then a *cul-de-sac*.—*Lancet*.

**The adoption of some form of general notification and inter-notification of infectious disease;** whereby districts in and around each county shall learn at weekly intervals, and the county generally at frequent intervals, the nature and amount of notified sickness in neighboring sanitary areas and in sanitary areas all over the country, is an object to be aimed at not only as desirable, but as essential to the highest standard of excellence in preventive administration. Concealment of disease by any district ought to be an impossibility, and should, when discovered, certainly be held up to public execration. If all districts were alike subjected to public scrutiny as regards disease occurrence in the same way in which deaths are now brought forward in large towns, it would be to the immense advantage in many ways of the public health.—*British Medical Journal*.